

# (12) United States Patent

### Manohar

### US 9,286,526 B1 (10) **Patent No.:** (45) Date of Patent: Mar. 15, 2016

### COHORT-BASED LEARNING FROM USER **EDITS**

(71) Applicant: Amazon Technologies, Inc., Reno, NV

(72)Inventor: Vasant Manohar, Tamil Nadu (IN)

Assignee: Amazon Technologies, Inc., Seattle, WA

(\*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 52 days.

(21) Appl. No.: 14/100,819

(22) Filed: Dec. 9, 2013

(51) **Int. Cl.** G06K 9/03 (2006.01)G06K 9/00 (2006.01)

U.S. Cl. CPC ...... *G06K 9/00852* (2013.01)

Field of Classification Search

CPC ...... G06K 2209/01; G06K 9/00; G06K 9/80; G06K 9/00442; G06K 9/2063; G06K 9/228; G06K 9/344; G06K 9/00463; G06K 9/00979; G06K 9/033; G06K 9/2081; G06K 9/6857; G06K 9/723; G06K 9/004049; G06K 9/00456; G06K 9/00469; G06K 9/00476; G06K 9/00483; G06K 2209/011; G06K 2209/013; G06K 2209/00489

USPC ....... 382/181, 182, 173, 176, 177, 180, 309, 382/311, 187

See application file for complete search history.

#### (56)References Cited

### U.S. PATENT DOCUMENTS

5,048,097 A * 5,459,739 A * 7,221,800 B2 * 7,305,129 B2 * 7,764,830 B1 * 8,515,751 B2 * 8,787,670 B2 * 2002/0156816 A1 * 2013/0077856 A1 *	10/1995 5/2007 12/2007 7/2010 8/2013 7/2014 10/2002	Gaborski et al. 382/156   Handley et al. 714/797   Sesek et al. 382/229   Chellapilla et al. 382/174   Wnek 382/159   Zanolin et al. 704/235   Cowley et al. 382/176   Kantrowitz et al. 707/530   Ferro 382/159
--	---	--

<sup>\*</sup> cited by examiner

Primary Examiner — Sheela C Chawan (74) Attorney, Agent, or Firm — Lee & Hayes, PLLC

#### (57)**ABSTRACT**

A platform for generating a first character recognition-based work including a first plurality of automatically-made edits, each edit being characterized by a Unicode and a confidence score. The platform may identify at least one edit as being of questionable accuracy based on the confidence score, may determine a unique character signature of the edit, and may receive a manual correction made to the edit. The platform may also store the manual correction in association with the character signature and the Unicode, such that the manual correction is configured for use in generating a second plurality of automatically-made edits in a second character recognition-based work different than the first work.

## 20 Claims, 5 Drawing Sheets

